



CLEAN WATER ACTION

MICHIGAN

December 17, 2009

Dear Chairwoman Warren and Honorable Members of Great Lakes and Environment Committee,

On behalf of Clean Water Action's over 235,000 members, I urge you to support Representative Kennedy's bill, HB 4699, which phases out the use of deca-BDE in mattresses, furniture, televisions and computers. Clean Water Action supports HB 4699 because deca-BDE is unnecessarily contaminating our Great Lakes and Michigan must move forward with the alternatives that will protect consumers and our state's vital natural resources.

Deca-BDE and all PBDEs congeners (there are 209 of them, many of which are breakdown products from deca-BDE and the banned penta and octa-BDE) have already widely contaminated Michigan's environment. These PBDEs act much like banned PCBs (polychlorinated biphenols).

Deca-BDE is a particularly harmful in the Great Lakes. The chemical properties of PBDEs do not allow them to evaporate or to dissolve easily in water. PBDEs in water strongly attach themselves to soils, sediments, and organic materials, which allow easy transfer of PBDEs to aquatic organisms. Because it has more bromine molecules, deca-BDE is even less mobile in the environment than other PBDEs, and appears to be causing particular problems in the Great Lakes. As of 2005, the amount of deca-BDE-- which two studies found comprised approximately 95% of total PBDE load-- was doubling in Lake Michigan every 7.5 years.ⁱ The total burden of PBDEs in sediments of Lakes Michigan and Erie were 110 and 10 metric tons respectively.

Scientific evidence shows that levels of PBDEs, including deca-BDE, are sharply increasing in our Great Lakes. According to the testimony that you heard about Dr. Rick Rediske's research at Grand Valley State, PBDEs have been found in nearly every fish that he has analyzed. This is consistent with other research:

- Lake Michigan salmon were found to contain PBDEs at levels of about 100 parts per billion, "one of the world's highest concentrations for salmon in open water."ⁱⁱ

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- PBDE levels in Great Lakes walleye and lake trout rose exponentially from 1980 to 2000, doubling every 3-4 years.

And, the findings hold true for other wildlife as well.

- "Herring gull eggs from the Great Lakes region analyzed by the Canadian government showed a 60-fold increase during the past two decades with no significant signs of downward trends."ⁱⁱⁱ

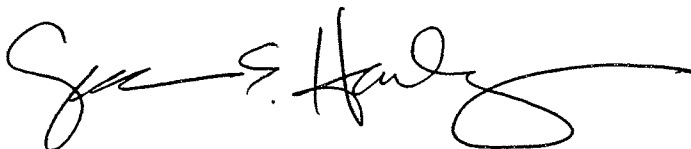
Even though there is clear evidence of health impacts from PBDEs, Michigan has not issued fish consumption advisories necessary to protect and inform residents of the dangers of eating fish contaminated with deca or other PBDEs. The bioaccumulation of PBDEs is greatly harming the \$7 billion dollar Great Lakes sport fishing industry.

Moreover, it is clear that deca-BDE is being ingested by humans. PBDEs have recently been found in biosolids and sewage sludge used for agricultural applications in three Lake Superior watershed communities and eight Lake Michigan watershed communities. The average concentration of deca in sludge in the Lake Superior watershed was 510 parts per million (ppm) and in the Lake Michigan watershed was 466 ppm.^{iv} And, in the three Lake Superior and eight Lake Michigan watershed communities, PBDE congeners, including deca-BDE, were found to be 30-50 times higher than the most abundant congener of PCBs, which are chemically very similar to PBDEs.^v

Michigan has already banned penta and octa-BDEs, it's time to finish the job and phase out deca-BDE. Our Great Lakes support the state's valuable tourism, agriculture, and manufacturing industries. We can't afford to ruin Pure Michigan when there are safer alternatives to deca-BDE that could be manufactured right here in the state!

Clean Water Action strongly urges you to support HB 4699 to phase out deca-BDE in mattresses and residential furniture by 2010 and televisions and computers by 2012.

Sincerely,



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ⁱ Illinois Environmental Protection Agency. DecaBDE Study: A Review of the Available Research. A Report to the General Assembly and the Governor in Response to Public Act 94-100. January 2006. Pg 4. <http://www.epa.state.il.us/reports/decabde-study/available-research-review.pdf>. Accessed December 9, 2009.

ⁱⁱ Fields S. Great Lakes Resource at Risk. *Environmental Health Perspectives*. 2005. 113, Number 3, pp. A164-A173.

ⁱⁱⁱ Hale R Alae M Manchester-Neesvig J Stapleton H Ikonomou M. Polybrominated diphenyl ether flame retardants in the North American environment. *Environmental International*. 2003. 29, pp 771-779.

^{iv} *Id.*

^v *Id.*